

DEC 05 2005

Technology Center 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Haruko TERAI et al.

Group Art Unit : Not Yet Assigned

Appl. No. : 10/541,544 (U.S. National Stage of PCT/JP03/017008)

I.A. Filed : December 26, 2003

Examiner : Not Yet Assigned

For : DISPLAY APPARATUS AND DISPLAY METHOD

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

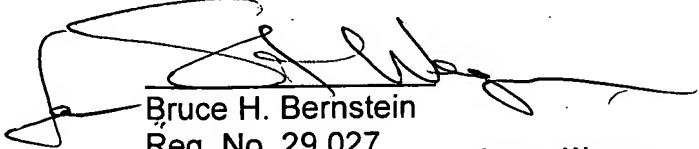
Commissioner for Patents  
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Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, Applicants hereby submit a copy of an English language translation of the International Preliminary Examination Report completed on April 13, 2005, with respect to patent family member PCT/JP2003/017008, in which no prior art documents were cited.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
Hideaki KAWAMURA et al.

  
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Translation

PATENT COOPERATION TREATY

PCT/JP2003/017008



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P032966-P0	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2003/017008	International filing date (day/month/year) 26 December 2003 (26.12.2003)	Priority date (day/month/year) 06 January 2003 (06.01.2003)
International Patent Classification (IPC) or national classification and IPC G09G 3/20, 3/28		
Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 29 July 2004 (29.07.2004)	Date of completion of this report 13 April 2005 (13.04.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/017008

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages \_\_\_\_\_ 1-31 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_ 2-6, 8-12 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ 1, 7 \_\_\_\_\_ received by this Authority on \_\_\_\_\_ 31 March 2005 (31.03.2005)
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages \_\_\_\_\_ 1-23 \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/17008

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The subject matters of claims 1-12 appear to be novel and to involve an inventive step, since they are not disclosed in any of the documents cited in the ISR.

Especially, none of the documents discloses a display apparatus using the sub-field method for gradation control, in which (1) first and second pixels are disposed at one pair of diagonal positions, while third and fourth pixels are disposed at the other pair of diagonal positions, (2) first to fourth light emission patterns are allocated to the first to fourth pixels vertically and horizontally adjacent to each other, (3) the combination pattern of light emission and non-light emission in the predetermined sub-fields excluding the sub-field having the largest weight value among plural sub-fields is made different from pixel to pixel among the first to fourth pixels, and (4) the gradation levels expressed by the light emission patterns of the first and second pixels are made lower than the mean value of the gradation levels expressed by the light emission patterns of the first to fourth pixels, while the gradation levels expressed by the light emission patterns of the third and fourth pixels are made higher than the mean value of the gradation levels expressed by the light emission patterns of the first to fourth pixels.

Furthermore, since this constitution allows the pseudo contour noise to be inhibited irrespective of the moving direction of the line of sight, a person skilled in the art could not have easily conceived of it.